

Notice No.3

Rules and Regulations for the Classification of Inland Waterways Ships July 2016

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately. Please note that paragraphs, Tables and Figures are not shown in their entirety.

Issue date: June 2017

Amendments to	Effective date	Mandatory Instrument
Part 1, Chapter 2, Section 3	1 July 2017	NA
Part 1, Chapter 3, Sections 4 & 13	1 July 2017	NA
Part 3, Chapter 12, Section 5	1 July 2017	NA
Part 5, Chapter 10 , Sections 2 & 7	1 July 2017	X

Part 1, Chapter 2 Periodical Survey Regulations

■ Section 3 Surveys – General

3.5 Existing ships – Periodical Surveys

3.5.8 When it is inconvenient for an Owner to fulfil all the requirements of a Special Survey at its due date, the Committee will be prepared to consider its ~~postponement~~ extension, either wholly or in part, provided that LR's Surveyors are afforded an opportunity, about the due date, of assessing the general condition of the hull. For this purpose, the Classification Committee will normally call for a General Examination of the ship of sufficient extent and which may include dry-docking (depending on age and records of the ship) to be assured that its condition is satisfactory for the period of grace desired, which is not to exceed 12 months from the due date. Attention is drawn to relevant regulations of the National Authorities of the country where the ship is registered. On completion of the Hull Special Survey, the assigned date will be the last date the vessel was under survey. The date assigned is not to exceed six years from the previous due date.

3.5.14 When it is inconvenient for an Owner to fulfil all the requirements of a Complete Machinery Survey at its due date, the Committee will be prepared to consider its ~~postponement~~ an extension, either wholly or in part, provided that LR's Surveyors are afforded an opportunity, about the due date, of assessing the general condition of the machinery. For this purpose, the Classification Committee will normally ~~require~~ call for a General Examination to be made, of sufficient extent to assure them that the condition of the machinery is satisfactory for the period of grace desired, which is not to exceed 12 months from the due date. Attention is drawn to relevant Regulations of the National Authorities of the country where the ship is registered. On completion of the Machinery Survey, the assigned date will be the last date the vessel was under survey. The date assigned is not to exceed six years from the previous due date.

Part 1, Chapter 3 Classification Regulations

■ Section 4 Special Survey – Hull requirements

4.3 Thickness measurements

4.3.2 Thickness measurements may be carried out in the 12 months preceding the due date of the Special Survey or when the Special Survey is ~~postponed~~ extended as well in the 12 months preceding the revised Special Survey due date.

■ Section 13 Boilers

13.1 Frequency of surveys

13.1.1 All boilers, thermal oil and hot water units intended for essential services, together with boilers used exclusively for non-essential services having a working pressure exceeding 3,5 bar and a heating surface exceeding 4,5 m² are to be surveyed internally. There is to be a minimum of two internal examinations during each five-year Special Survey cycle ~~or six-year cycle (when Special Survey has been postponed)~~. The interval between any two such examinations is not to exceed 36 months. A general external examination is to be carried out at the time of the Annual Survey on ships subjected to Annual Survey.

Part 3, Chapter 12

Ship Control Systems

■ Section 5

Equipment

5.13 Structural requirements

5.13.1 The windlass or winch is to be efficiently bedded and secured to the deck. The thickness of the deck in way of the windlass in combination with the stiffening arrangement is to be adequate in connection with for the loads imposed by the winch. Adequate stiffening is to be provided, to the Surveyor's satisfaction. The supporting structure for the anchor windlass is to be adequate for the greater of the brake holding load and a load equal to 45 per cent of the Rule breaking load of the cable passing over them. The structural design integrity of the bedplate is the responsibility of the Shipbuilder and windlass or winch manufacturer.

Part 5, Chapter 10

Piping Design Requirements

■ Section 2

Carbon and low alloy steels

2.11 Other mechanical couplings

2.11.1 Pipe unions, compression couplings, or slip-on joints, as shown in ~~Figure 10.2.3 Examples of mechanical joints A~~ **Figure 10.2.3 Examples of mechanical joints (Part 1)** and **Figure 10.2.4 Examples of mechanical joints (Part 2)** may be used if Type Approved for the service conditions and the intended application. The Type Approval is to be based on the results of testing of the actual joints. The acceptable use for each service is indicated in *Table 10.2.5 Application of mechanical joints* and dependence upon the Class of piping, with limiting pipe dimensions, is indicated in *Table 10.2.6 Application of mechanical joints depending on class of piping*.

Figure 10.2.3 Examples of mechanical joints A (Part 1) (*Figure not shown, only caption amended*)

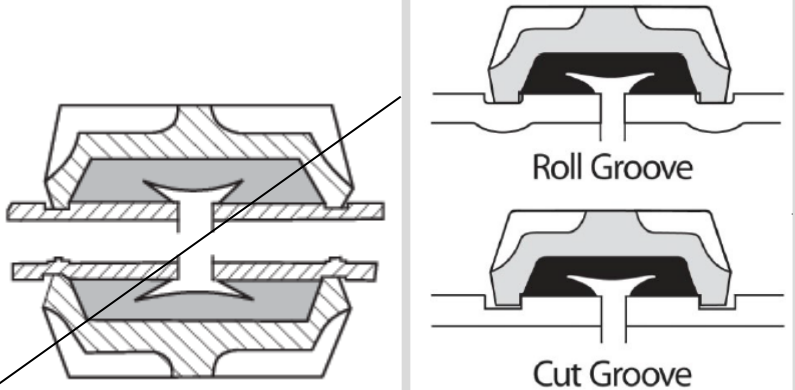
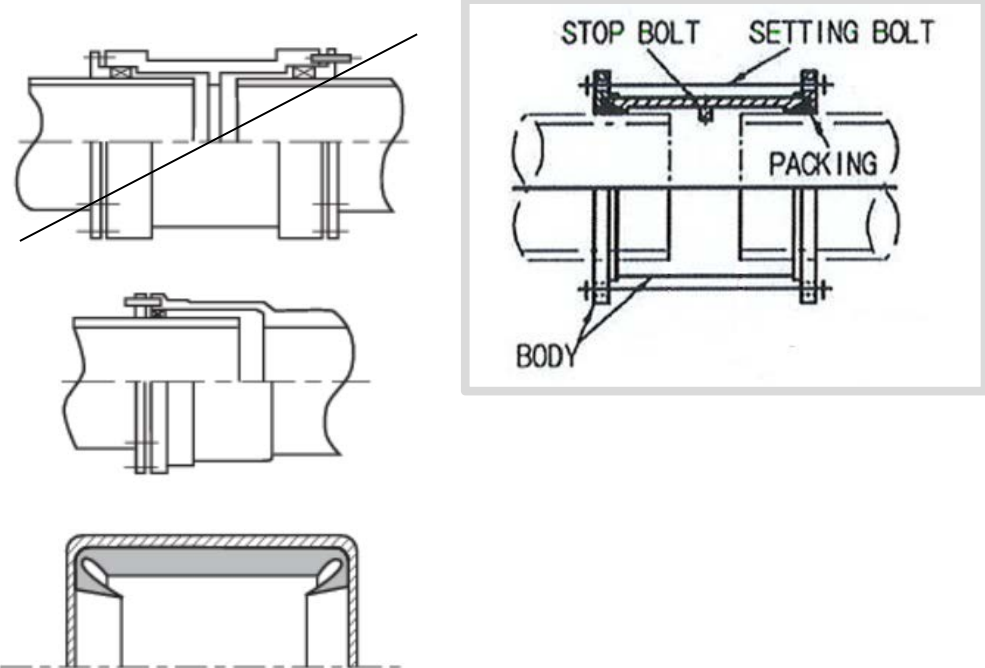
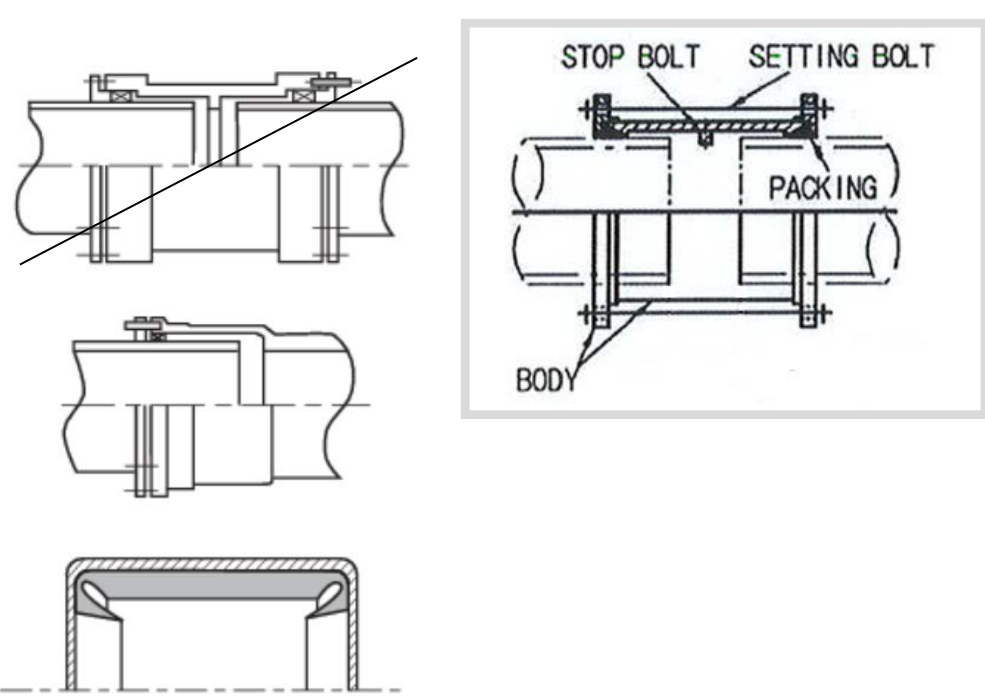
Machine Grooved Type	
Slip Type	
Slip Type	

Figure 10.2.4 Examples of mechanical joints B (Part 2)

Table 10.2.5 Application of mechanical joints

Systems	Kind Type of connections		
	Pipe unions	Compression couplings (6)	Slip-on joints
Flammable fluids (Flash point <55°)			
Cargo oil lines see Note 4	+	+	+5
Crude oil washing lines see Note 4	+	+	+5
Vent lines see Note 3	+	+	+3
Inert gas			
Water seal effluent lines	+	+	+
Scrubber effluent lines	+	+	+
Main lines see Notes 2 & 4	+	+	+2,5
Distribution lines see Note 4	+	+	+5
Flammable fluids (Flash point > 55°)			
Cargo oil lines see Note 4	+	+	+5
Fuel oil lines see Notes 2 & 3	+	+	+2,3
Lubricating oil lines see Notes 2 & 3	+	+	+2,3
Hydraulic oil see Notes 2 & 3	+	+	+2,3
Thermal oil see Notes 2 & 3	+	+	+2,3
Sea-water			
Bilge lines see Note 1	+	+	+1
Water filled fire-extinguishing systems, e.g. sprinkler systems see Note 3	+	+	+
Non-water filled fire-extinguishing systems, e.g. foam, drencher systems see Note 3	+	+	+
Fire main and water spray (not permanently filled) see Note 3	+	+	+3
Foam system	±	±	±3
Sprinkler system	±	±	±3
Ballast system see Note 1	+	+	+1
Cooling water system see Note 1	+	+	+1
Tank cleaning services	+	+	+
Non-essential systems	+	+	+
Fresh water			
Cooling water system see Note 1	+	+	+1
Condensate return see Note 1	+	+	+1
Non-essential system	+	+	+
Sanitary/Drains/Scuppers			
Deck drains (internal) see Note 6	+	+	+4
Sanitary drains	+	+	+
Scuppers and discharge (overboard)	+	+	-
Sounding/vent			
Water tanks/Dry spaces	+	+	+
Oil tanks (f.p.> 55°C) see Notes 2 & 3	+	+	+2,3
Miscellaneous			
Starting/Control air (1) see Note 1	+	+	-
Service air (non-essential)	+	+	+
Brine	+	+	+

CO ₂ system ~~see Note 1~~	+	+	-
Steam	+	+	+7 ~~see Note 5~~
KEY + Application is allowed - Application is not allowed Note 1. ~~Inside machinery spaces of Category A~~ Mechanical joints that include any components which readily deteriorate in case of fire, are to be of an approved fire-resistant type when fitted in machinery spaces of category A. Mechanical couplings fitted on the 'bilge main' in machinery spaces of category A are to be of steel or equivalent material. ~~- only approved fire resistant types.~~ Note 2. Mechanical joints that include any components which readily deteriorate in case of fire are ~~Not~~ not permitted inside machinery spaces of category A or accommodation spaces. Mechanical joints that include any components which readily deteriorate in case of fire that are of an approved fire-resistant type ~~May~~ may be accepted fitted in other machinery spaces provided the joints are located in easily visible and accessible positions. Note 3. ~~Approved fire-resistant types~~ Mechanical joints that include any components which readily deteriorate in case of fire fitted on fuel oil lines are to be of an approved fire-resistant type. Mechanical joints that include any components which readily deteriorate in case of fire fitted on other systems are to be of an approved fire-resistant type except when fitted on open decks having little or no fire risk. ~~Note 4. Above freeboard deck only.~~ Note ~~54~~. Mechanical joints that include any components which readily deteriorate in case of fire are to be of an approved fire-resistant type when fitted ~~in~~ in pump rooms and ~~on~~ on open decks ~~-- only approved fire resistant types.~~ Note ~~6~~. If compression couplings include any components which are sensitive to heat, they are to be of approved fire resistant type as required for slip-on joints. Note ~~75~~. ~~See Pt 5, Ch 10, 2.11 Other mechanical couplings 2.11.11~~ <i>Pt 5, Ch 10, 2.11 Other mechanical couplings 2.11.10.</i> Note 6. Mechanical joints are only permitted above bulkhead deck of passenger ships and freeboard deck of cargo ships. Note ~~87~~. A ~~Category A~~ machinery space is a machinery space containing internal combustion machinery for main propulsion or, internal combustion machinery used for purposes other than main propulsion where such machinery has a total power of not less than 375 kW or, containing any oil-fired boiler or fuel oil unit, or any other oil-fired equipment other than boilers.			

2.11.2 Where the application of mechanical joints results in a reduction in pipe wall thickness due to the use of bite type rings or other structural elements, this is to be taken into account in determining the minimum wall thickness of the pipe to withstand the design pressure.

~~2.11.3 Construction of mechanical joints is to prevent the possibility of tightness failure affected by pressure pulsation, piping vibration, temperature variation and other similar adverse effects occurring during operation on board.~~

~~2.11.4~~ 2.11.3 Materials of mechanical joints are to be compatible with the piping material and internal and external media.

~~2.11.5~~ 2.11.4 Mechanical joints for pressure pipes are to be tested to a burst pressure of 4 times the design pressure. For design pressures above 200 bar, the required burst pressure will be specially considered.

2.11.6 ~~In general, mechanical joints are to be of fire resistant type where required by Table 10.2.5 Application of mechanical joints.~~

~~2.11.7~~ 2.11.5 Mechanical joints, which in the event of damage could cause fire or flooding, are not to be used in piping sections directly connected to the ~~sea openings~~ ship's side below the bulkhead deck of passenger ships and freeboard deck of cargo ships or tanks containing flammable fluids.

~~2.11.8~~ 2.11.6 The mechanical joints are to be designed to withstand internal and external pressure as applicable and, where used in suction lines, are to be capable of operating under vacuum.

2.11.7 The number of mechanical joints in flammable fluid systems is to be kept to a minimum. In general, flanged joints are to conform to a recognised standard.

~~2.11.9~~ 2.11.8 Generally, slip-on joints are not to be used in pipelines in cargo holds, tanks, and other spaces which are not easily accessible. Application of these joints inside tanks may only be accepted where the medium conveyed is the same as that in the tanks.

2.11.10 2.11.9 ~~Unrestrained slip-on joints are only to be used in cases where compensation of lateral pipe deformation is necessary.~~ Usage of slip type slip-on ~~these~~ joints as the main means of pipe connection is not permitted ~~except for cases where compensation of axial pipe deformation is necessary.~~

~~2.11.11~~ 2.11.10 Restrained slip-on joints are permitted in steam pipes with a design pressure of 10 bar or less on the weather decks of oil and chemical tankers to accommodate axial pipe movement, see Pt 5, Ch 11, 2.7 Provision for expansion.

~~2.11.12~~ 2.11.11 Mechanical joints are to be tested in accordance with a program approved by LR, which is to include the following tests as relevant to the service conditions and the intended application: the test requirements in LR's Type Approval Test Specification Number 2, as relevant to the service conditions and the intended application. The programme of testing is to be agreed with LR.

- ~~leakage test;~~
- ~~vacuum test (where necessary);~~
- ~~vibration (fatigue) test;~~
- ~~fire endurance test (where necessary);~~
- ~~burst pressure test;~~
- ~~assembly test (where necessary);~~
- ~~pull out test (where necessary);~~
- ~~static displacement/misalignment test (where necessary).~~

■ Section 7 Flexible hoses

7.3 Design requirements

7.3.4 Flexible hose assemblies constructed of non-metallic materials intended for installation in piping systems for flammable media, and outboard-water systems where failure may result in flooding, are to be of fire-resistant type. Non-metallic flexible hoses used for outboard-water systems and flammable media, except fuel oil, installed on open decks having little or no fire risk are not required to be of fire-resistant type. Fire resistance is to be demonstrated by testing to ISO 15540 and ISO 15541.

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